Application Number: T3-00011 **Scientific Score**: 60 or below

Specific names of individuals and institutions are blacked out to preserve applicant confidentiality where possible.

Title: [redacted] Stem Cell Training

Proposal Abstract as Submitted by Applicant

[redacted] is the only African-American university and school of medicine west of Mississippi, and the only minority school of medicine in California. It is located in a mainly Hispanic and Afro-American area [redacted], and its faculty members and students have a substantial representation of minorities. [redacted] has considerable NIH funding and most of its faculty have dual appointments at [redacted] It is fully committed to stem cells research, as evidenced by recent publications, the establishment of the RCMI Molecular Medicine and Stem Cells Core (MMSC Core), and the allocation of both space and resources to stem cell-oriented projects and teaching. The new Medical Science Institute (MSI) will concentrate most of the research faculty and funding, and will be independent from clinical departments, but maintain a strong translational research intramural and extramural interaction. The current application corresponds to the "CIRM Type III-Specialized training programs" and aims to train a group of six post-doctorate candidates to be selected from qualified applicants, including junior faculty members at the MSI, on stem cells research for consecutive three years. Our proposal will provide: A) instructional training through attendance to: a) [redacted] Stem Cells Institute and CIRM Training Program courses, through a formal agreement; b) monthly lectures at [redacted] on "Topics in Stem Cell Research"; c) course on embryonic stem cells at the [redacted]; d) hands-on training in laboratory techniques by the MMSC Core at [redacted]; and e) seminars, lectures and related activities; and B) research training by the assignment of scholar research projects within the ongoing group research topics mainly on skeletal muscle dystrophies, breast cancer, cardiovascular disease, obesity and diabetes type 2, retinitis pigmentosa, glaucoma, hypopituitarism, and lung and kidney fibrosis. These projects involve adult stem cells, and in some cases embryonic stem cells, and special emphasis will be placed in developing the latter approach at [redacted]. Eight mentors from three local institutions ([redacted], [redacted] and [redacted]) will partner when necessary with five co-mentors ([redacted], [redacted]), and/or will be advised by two consultants ([redacted], [redacted]). The Program will be run by the Director, and Internal and External Advisory Committees, and will be located at [redacted], with extramural associated laboratories.

Benefit of this Program to California

This program will benefit the people and the state of California by providing high-quality training in the scientific, clinical, social, and ethical aspects of stem cell research to the scientists and clinicians who will develop and apply future therapies in this rapidly emerging field.

T3-00011

Summary of Review

This type III application seeks to provide training to six post-doctoral scholars mentored by eight internal faculty members, with significant support from other area institutions. A nearby institution will provide most of the required course work. The program focuses largely on the laboratory, and most ongoing formal education of the trainees will require travel to other institutions. Research training will consist of integrating the trainee into a laboratory for research involving stem cells and will lead to an individual project within the areas of funded research at the institution. However, none of the mentors appears to have specific experience in embryonic stem cells and the main expertise is in adult, fat-tissue-derived mesenchymal stem cells. Only one mentor, other than the program director, is a seasoned and experienced investigator. The program director fully acknowledges that the stem cell efforts at this institution are incipient and that significant extramural mentoring and collaboration will be required for the success of the training program. The program director is a well-known biochemist and very experienced investigator; clearly qualified to lead the administrative effort supporting this application. Internal and external scientific advisory committees will assist the director to select trainees, assign them to mentors, and elect lectures. The institution does present a clear aptitude for translation of stem cell therapies including transplantation of stem cells into pituitary and testosterone modulation of stem cells. Integration is possible and represents a strength of the proposal. The application does not provide adequate information to evaluate the applicant pool or the quality of existing training programs. However, the institution should be attractive to minority students, since its mission is to serve the local minority population.

Overall Strengths and Weaknesses

Overall, the training environment is severely limited at this institution and the proposed training program is highly reliant on many alliances. This program could not stand on its own, which is acknowledged in the application. The pool of potential mentors is too small and does not seem well-equipped to provide adequate training for six post-doctoral fellows.

Recommendations

Not recommended for funding at this time.

	Pre	Post	Clinical	Total
Fellows Requested:	0	6	0	6
Fellows Recommended:	0	0	0	0

	Year 1	Total
Budget Requested:	$ 459,582	$ 1,378,746
Budget Recommended:	0	0